

GAO

United States
General Accounting Office
Washington, D.C. 20548

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Resources, Community, and
Economic Development Division

B-226076.2

February 21, 1989

The Honorable Gerry E. Studds, Chairman
Subcommittee on Fisheries and Wildlife Conservation
and the Environment
Committee on Merchant Marine and Fisheries
House of Representatives

Dear Mr. Chairman:

Re: Spotted Owl

In response to your February 10, 1988, letter, jointly signed by the former Chairman, Subcommittee on Oceanography, we reviewed the decision by the U.S. Fish and Wildlife Service (FWS) to deny a petition to list the northern spotted owl as an endangered species. As agreed with your offices, this report focuses on the process FWS followed in reaching that decision.

In January 1987, FWS accepted a petition from an environmental organization to list the spotted owl as an endangered species under the Endangered Species Act. Pursuant to the act, in response to such a petition, FWS is to review the species' status and make a listing decision solely on the basis of its biological condition. To investigate the spotted owl petition, FWS formed a study team, which prepared a status report on the owl. In December 1987, FWS concluded that the owl was not endangered and denied the listing petition. Environmental groups challenged FWS' decision in federal court in March 1988. In November 1988, the court decided that FWS had not supported its conclusion that the owl was not endangered or threatened. The court has subsequently given FWS until May 1, 1989, to provide additional support for its conclusion.

Results in Brief

In summary, we found several factors that raise questions about FWS' thoroughness and objectivity in considering the petition to designate the spotted owl as an endangered species. The problems we identified include the following:

- The time allotted for the spotted owl study team to conduct its analysis was not adequate to thoroughly investigate the owl's status.
- FWS management substantively changed the body of scientific evidence presented in the study team's status report after it had been reviewed and adjusted by outside experts. The revisions had the effect of changing the report from one that emphasized the dangers facing the owl to one that could more easily support denying the listing petition.

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- According to the FWS official who signed the final decision, factors in addition to the owl's biological condition were considered in deciding to deny the listing petition. FWS consideration of such factors is inconsistent with the decision-making process provided for in the Endangered Species Act and its implementing regulations.

Decisions on listing petitions, like this one for the northern spotted owl, can often be surrounded by highly emotional debates centered on the decision's possible economic consequences rather than its biological merits. In such cases especially, FWS needs to be able to demonstrate that its review process and ultimate decisions have been as thorough, independent, and objective as possible. There is evidence that the spotted owl process did not meet such standards.

Background

The Endangered Species Act of 1973 as amended (16 U.S.C. 1531 *et seq.*) was enacted to protect fish, wildlife, and plants whose survival, as species, is in jeopardy. For a species to be designated as endangered, it must, by law, be in danger of extinction throughout all or a significant portion of its range now or in the foreseeable future.

The Secretaries of the Interior and Commerce have principal responsibility for administering the act. These responsibilities include determining which species should be listed as endangered or threatened,¹ consulting with other federal agencies when endangered species may be affected by their proposed actions, and planning and implementing actions designed to bring endangered species back to health. In general, Commerce handles marine species, while Interior is responsible for freshwater and land species, such as the spotted owl.

Within Interior, responsibility for implementing the act in general and for making listing decisions in particular has been delegated to the Director of FWS. Following internal reorganization, the FWS Director, since May 1986, has further delegated general authority for determining which species should be listed or proposed for listing to the directors of each FWS region who have responsibility for the species. In the case of the northern spotted owl, the responsible official under this delegation would be the Director of FWS Region 1 in Portland, Oregon.

¹ Under the act, species may be classified as threatened if they are likely to become endangered in the foreseeable future. Hereafter, the report uses the term endangered to include threatened.

Description of the Petition Process

Under the Endangered Species Act, in addition to those cases when FWS itself initiates listing proceedings, the process for determining whether a species should be listed as endangered can begin with a petition submitted by an individual, group, or federal agency. Once petitions are submitted, the act and regulations direct FWS to determine within 90 days (to the maximum extent practicable) whether the petitioned action may be warranted. If FWS determines that the action may be warranted, it has 1 year from receipt of the petition to study the matter and reach a decision on whether the species is endangered. FWS has no set process to guide its study. We found, however, that it conducts its studies in a number of ways, including review by an individual specialist or a study team.

Under the act, the determination that a species is endangered may be made on any one of the following factors: (1) present or threatened destruction, modification, or curtailment of the species' habitat or range, (2) overutilization of the species by man for commercial, recreational, scientific, or educational purposes, (3) presence of substantial threat from disease or predation, (4) inadequacy of existing regulatory mechanisms for protecting the species, or (5) presence of other natural or man-made factors affecting the species' continued existence. The act provides that such determinations shall be made "solely on the basis of the best scientific and commercial data available." The word "solely" was added by the 1982 amendments to the act to ensure that a listing decision "was based solely on an evaluation of the biological risks faced by the species to the exclusion of all other factors." (Northern Spotted Owl, et al., v. Hodel, (D.C. W.D.W. 1988, No. C88-5732, p. 3.))² The conference report for the 1982 amendments noted that the addition of the word "solely" will make clear that biological criteria are the only basis for listing decisions and will prevent "non-biological considerations" from affecting such decisions. (App. I excerpts relevant sections of the act and regulations.)

After a judgment of endangerment has been made, the act affords opportunity for considering nonbiological factors while protection and recovery efforts are being developed and implemented. For example, the act provides exceptions to its prohibition against killing endangered species in certain circumstances. Further, the act established an Endangered Species Committee to grant exemptions when application of the act's species protection provisions is blocking a proposed federal action,

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²The court's view of the meaning of the amendment is similar to FWS' position. (49 Fed. Reg. 38900, Oct. 1, 1984.)

such as construction of a dam. Importantly, the act requires the committee, when making its judgments, to balance the economic and social benefits of the proposed action against the continued viability of the species.

Information on the Spotted Owl and Its Significance to the Pacific Northwest

Northern spotted owls live primarily in the old growth³ and mature forests of Oregon, Washington, and northern California. These ancient forests, which provide habitat for hundreds of species as well as remarkable aesthetic qualities, are becoming increasingly rare. The spotted owl is recognized as an important indicator of the overall ecological health of these shrinking forests. In this context, scientists track the health of the spotted owls to represent the health of the several hundred other species sharing the habitat.

Federal agencies—primarily the U.S. Forest Service in the Department of Agriculture, and Interior's Bureau of Land Management and National Park Service—hold about 92 percent of the remaining spotted owl habitat in these three states. The Forest Service, with about 68 percent of the habitat, has for years been conducting conservation activities for spotted owls as part of its overall forest management efforts. In addition, the Forest Service has identified a number of alternative options, and ultimately selected one option as preferable, for protecting the owls as part of its planning process for future land and resource management actions.

The owls typically require substantial amounts of mountain forest land to survive. In one analysis, for example, the Forest Service has suggested that each pair of spotted owls needs a habitat area of 1,000 to 2,700 acres. Such large habitat requirements place the owl's interests squarely at odds with those of the Pacific Northwest forest products industry. Currently, Pacific Northwest old growth forests are being logged at a rate of 62,000 acres a year. Forest Service data show that if the spotted owl was listed as endangered and associated protection efforts were put in place, up to 2.6 million acres, representing 27 percent of Northwest national forest land suitable for timber production, could be placed off-limits to logging activity. If, on the other hand, the owl is not listed, the owl and many other old growth-dependent species, as well

³Old growth forests, such as those used by the spotted owl, are characterized by tall dominant trees that are hundreds of years old. Mixed into the forests are younger, shorter trees of diverse species. Not all old growth forest is suitable spotted owl habitat, but in suitable habitats, the large trees' broken tops and cavities are used by the owls as nesting sites. As saw logs, old growth timber is valued because its dense wood is stronger and freer from knots than younger trees.

as the old growth forests themselves, could be in jeopardy, according to environmental groups.

Spotted Owl Listing Petition and Its Disposition

In October 1986, GreenWorld, of Cambridge, Massachusetts, proposed to FWS that the spotted owl be listed as endangered. As its basis, GreenWorld cited a significant decline in the numbers of spotted owls and suitable habitat. As set forth in a letter from the FWS Director, FWS initially did not accept the proposal on the grounds that it was not explicitly identified as a petition. When GreenWorld added the phrase "Petition [sic] To List A Species As Endangered" to its proposal and resubmitted it, the review process formally began on January 28, 1987. (The petition is included as app. II to this report.)

On July 23, 1987, approximately 6 months after the petition had been received, the Director of FWS Region 1 announced that the petitioned action might be warranted and that further study of the issue should be undertaken. A study team composed of three FWS biologists was formed to prepare a report (called a status report) on the spotted owl. The team began work in September and submitted its final product, a draft report to FWS headquarters, on November 30, 1987. On December 18, 1987, slightly less than 11 months after the process formally began, the Director of FWS Region 1 signed the FWS finding that although the spotted owl was declining in number, it was not endangered.⁴

Following the decision denying the GreenWorld petition, on May 5, 1988, the Sierra Club Legal Defense Fund sued the Department of the Interior, FWS, and their officials, on the grounds that the scientific record showed the spotted owl was endangered in the Olympic Peninsula and Oregon Coast Range and should have been formally proposed for listing. In response to a motion for summary judgment, on November 17, 1988, the United States District Court for the Western District of Washington (Seattle, Washington) found that FWS had acted in an arbitrary and capricious manner, noting that FWS had failed to (1) show a rational connection between the evidence presented and its decision not to list the owl as endangered and (2) consider whether the owl could be listed as a threatened species.

⁴Subsequent to this decision, the Director of FWS Region 1 was reassigned to another position. In January 1989, he lost an appeal of his reassignment. This official was interviewed for this report both before and after his reassignment. Because he was involved through the final decision on the spotted owl, he is referred to as the Director of FWS Region 1 throughout this report.

The court remanded the case to FWS to provide additional evidence within 90 days supporting its decision that listing the owl as endangered was not warranted. In response to the remand order, FWS sought court approval for an extension to the 90-day deadline and authority to reopen the administrative record for the case. The court granted this request and gave FWS until May 1, 1989, to provide additional support for its initial conclusion. With this extension, FWS has formed a new study team and is currently reexamining evidence on the owl's status. (App. III contains a more detailed chronology of the spotted owl listing decision process.)

Period for Study Reduced to Less Than 3 Months

The Endangered Species Act gives FWS up to 1 year to review a listing petition, determine whether further study is warranted, conduct the study, and make a decision. Within this 1-year period, the act and FWS implementing regulations require FWS to determine within 90 days (to the maximum extent practicable) whether action on a petition is warranted. FWS has stated that the 90-day requirement can be waived only if efforts to meet the deadline would hamper efforts needed to list other species in greater need of protection. If the full 90 days were used, 9 months would remain to develop a study approach, study the issue, and reach a decision.

We found that FWS officially received GreenWorld's petition on January 28, 1987, but took nearly 6 months to decide that a study was warranted. The effect of this delay was to reduce the time available for the study by 3 months.

As discussed earlier, under FWS' decentralized management structure, the Director of FWS Region 1 was responsible for handling the spotted owl case. However, in practice, the FWS Director retained a significant operational role during the evaluation of the owl's status. In this context, the Director of FWS Region 1 made his initial finding on the spotted owl petition within the 90-day period specified in the act. He decided there was sufficient information about the spotted owl to indicate that a study of the petitioned action might be warranted and, in a memorandum dated April 27, 1987, communicated his finding to the FWS Director, his immediate superior. The Director of FWS Region 1 wrote, "My analysis leads me to conclude . . . the Service should proceed to a status review to determine if listing is actually warranted." On about the first of May, endangered species staff in FWS headquarters briefed the FWS Director on the requirements of the petition process. A participant in that briefing stated that the FWS Director was informed that the spotted

owl petition met FWS requirements for further review. At that point the Director of FWS Region 1 said he was waiting for approval by the FWS Director before he formally responded to the petitioner. Once he obtained this approval, he issued his finding that the petitioned action might be warranted in July 1987.

When questioned about the delay, the FWS Director responded that neither he nor any other Interior official delayed the process and that he had no knowledge of the reason for the delay. The Director commented that he was "completely disengaged" from the decision and suggested that we check with the Director of FWS Region 1, who had been delegated responsibility for the decision. The Director of FWS Region 1 and regional staff said that the delay in initiating the status review was caused by FWS headquarters officials and a top Interior official who questioned whether the petition could be accepted because GreenWorld only referenced evidence produced by others rather than including that evidence in the petition.

The amount of time available for the study was further reduced when the FWS Director established a December 1, 1987, deadline for reaching a listing decision. This deadline was nearly 2 months sooner than mandated by the act's 1-year requirement. We asked the FWS Director to explain his decision to move up the deadline even though the study team had been substantially delayed in starting its work. The Director told us that he established the deadline to avoid delays caused by the holidays.

Taken together, the delay in starting the study and the December deadline for completing it reduced the overall time available for analysis by about 5 months. When the additional time needed to form a study team and begin the actual study is factored in, the team had less than 3 months to complete its work.

Members of the study team told us that, in the limited time available, they were unable to obtain information they considered important to reaching a decision. In particular, during its work the team had received unconfirmed evidence that ongoing efforts by the Forest Service to protect the owl on its lands had been less than effective. These protection efforts are mandated by the National Forest Management Act of 1976 (16 U.S.C. 1604) to ensure the diversity of animal communities in the National Forests. The study team leader made it clear in a memorandum to regional management that FWS needed more detailed information on the effectiveness of the Forest Service's historic efforts, as well as its planned conservation activities, "before a reasonable judgment can be

made on the owl's welfare." In the time available, the study team was unable to gather and analyze the data it needed to assess this issue. A team member estimated that an additional month would have been needed to complete this assessment.

Since information about the Forest Service's performance was so critical to the decision about the species' status, we asked regional officials why they did not authorize this analytical effort. They gave us three reasons: (1) there was not enough time, given the December 1 deadline for completing work, (2) the unconfirmed evidence available on Forest Service performance was discounted by regional management as anecdotal and unsubstantiated, and (3) FWS did not wish to put the additional staff resources into the study.

Status Report Substantively Altered After Peer Review

In the last weeks of the petition process and after outside spotted owl experts had reviewed and endorsed the status report, FWS officials directed changes to the body of scientific evidence in the report, eliminating an FWS expert's conclusion that the owl was endangered and revising the presentation of other evidence indicating that there were risks to the spotted owl's continued survival if logging of the owl's habitat continued at its current pace.

All three FWS biologists conducting the spotted owl study had extensive experience with the requirements of the Endangered Species Act, but none were spotted owl experts. Accordingly, the team leader involved outside spotted owl experts in a peer review of the biological information to be included in the report. Peer review is not a normal practice, according to FWS personnel, but was undertaken to better ensure the biological integrity of the evidence presented in the report. The outside experts reviewed two drafts of the report—one in October, the other in mid-November. The changes suggested by the peer reviews were made and endorsed by the team leader as ensuring the report's scientific validity.

Additionally, because none of the team members were experts in the population viability analysis⁵ necessary to evaluate the effectiveness of Forest Service's planned spotted owl conservation activities (a step crucial to determining whether spotted owls were likely to survive with administrative rather than statutory protection), the team leader

⁵Population viability analysis is a technique for determining the likelihood of species extinction under various conditions.

recruited an FWS expert to review the Forest Service analysis. The FWS expert's work was subsequently peer reviewed and endorsed by a separate group of experts in population viability analysis and related fields during October and November 1987.

After receiving comments from the outside experts on the two drafts and the special population viability analysis, the study team and the Region submitted the draft report to headquarters on November 30, 1987. The Region took this action because the staff was operating under the assumption that despite the general delegation of authority on listing matters, the final decision on the spotted owl was to be made by the FWS Director.⁶ The Assistant Director of FWS Region 1, who oversaw the status review effort, characterized the November 30 draft as complete and unbiased. This draft did not contain specific conclusions about whether the spotted owl was endangered or recommendations as to actions that should be taken. However, it did contain the following interpretive material:

- The draft evaluated the Forest Service's modelling procedures used to arrive at its preferred alternative for protecting the spotted owl, assuming the species was not designated as endangered. This evaluation, included as an appendix to the report, stated that the Forest Service's preferred alternative would lead to the species' extinction in the foreseeable future.
- The draft also evaluated the five conditions the act requires to be assessed in determining whether a species is endangered, and stated that the spotted owl habitat was being reduced by about 62,000 acres per year and that studies in Oregon indicated that loss of habitat and reductions in observations of spotted owls were associated with this decline.

Two of the three study team members told us that on the basis of their review of the literature on the spotted owl, they concluded that the spotted owl probably was endangered on the Olympic Peninsula. The third member said that because of the lack of solid data, he did not think at the time that the evidence supported such a conclusion; but after further reflection, he came to the same conclusion.

⁶As events actually unfolded, FWS headquarters actively participated in guiding the final decision-making process. However, the Director of FWS Region 1 was ultimately assigned the responsibility for signing the final decision and did so on December 18, 1987.

The Director of FWS Region 1 told us that upon receiving the November 30 draft status report, FWS headquarters officials requested that the Region assist them in rewriting the report to support a decision that the spotted owl was not endangered. One team member described the request, as passed through regional management, as directing the team to "sanitize the report" and to add more information from industry sources. Over a 1-week period, the November 30 draft was extensively rewritten in the Region by the Region's endangered species listing coordinator, who acted as management's liaison with the study team, and a member of the study team.

We compared the November 30 draft submitted to FWS headquarters and the final revised report to determine the types of changes that had been made and the kinds of new evidence that had been introduced. In reviewing these changes, we noted several matters that raise questions about the objectivity of the review process—in particular, the following:

- The section of the report stating that the Forest Service's planned protection activities would lead to the owl's eventual extinction was removed. In addition, the 29-page, peer-reviewed appendix that expanded on this section was dropped. In its place, the final report summarized the draft report section and appendix in a fashion that did not accurately capture the pessimistic tone of the original material. The final report also added contrary information from a report prepared for the forest products industry by a university consultant. On the basis of this added information, the revised report found that the Forest Service's planned activities would not endanger the owl. Subsequently, the consultant who authored the new information cited in the final report wrote FWS to say that his work "did not conclude that the spotted owl enjoys a low probability of extinction, and [he] would be very disappointed if efforts to preserve the Spotted Owl were in any way thwarted by a misinterpretation of something [he] wrote."
- A number of other draft report sections dealing with the threats of clear cutting, forest fragmentation, and the inadequacy of existing federal protection efforts were either removed or were revised in tone in the final report. For example, information linking past Forest Service practices to the existence of a "wide range of field implementation quality [of owl protection efforts] . . . from Forest to Forest," along with sections dealing with historical Forest Service performance, was removed and replaced with material on what the Forest Service planned to do in the future. Further, material on the low occupancy rates of nesting sites in the Olympic Peninsula that was highlighted in the November 30, 1987, draft was not mentioned in the final report.

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- None of the changes made subsequent to the November 30 draft were peer reviewed, even though they contradicted and replaced information that had been endorsed by outside spotted owl experts.
 - The changes to the draft report were not discussed with the study team leader. We asked the Assistant Director of FWS Region 1 if the study team member that helped perform the rewrite was authorized to make the changes without contacting the team leader. He commented that the team leader was still in charge despite having gone on to other work and that all of the changes should have been cleared with the team leader. He was unaware that this had not been done. Upon reading the report after it had been finalized, the team leader disagreed with the rewrite and believed it had changed the tenor of the report from one that emphasized the dangers facing the owl to one that supported denying the listing petition.

While changes are an inevitable part of any draft report review process, the nature of the changes made in this case and the way they were made raise questions about whether objectivity was maintained. In the end, the unique steps taken by the study team to ensure the scientific integrity of its report by peer review were compromised by questionable changes requested by FWS headquarters officials.

Factors Unrelated to Owl's Biological Condition Considered in Denying Listing Petition

The Director of FWS Region 1, who signed the decision denying the spotted owl listing petition, told us that two factors not related to the owl's biological condition contributed to the final judgment. First, he believed that the Endangered Species Act was cumbersome to implement. If the owl were to be listed, he believed owl protection initiatives would be delayed several years and be made more costly by legal actions initiated by interested parties. Alternatively, in his view, cooperative agreements with other federal agencies would enable some protective efforts to get underway more quickly at less cost to the government. If such efforts were unsuccessful, he stated FWS would always have the option to list the owl on an emergency basis.

Second, he said his determination was influenced by his belief that the FWS Director and other Interior officials would not accept a decision to list the spotted owl as endangered. To explain the climate he believed he was operating in, the Director of FWS Region 1 said that one top Interior official made his view clear that the owl should not be listed under any circumstances. While stating that he had received no written directives from the FWS Director, the Director of FWS Region 1 told us he believed he had correctly grasped the FWS Director's similar views during various

We conducted our review from April 1988 through December 1988 in accordance with generally accepted government auditing standards. We interviewed all management and line personnel connected with the spotted owl petition process in FWS headquarters and Region 1. We conducted similar interviews with Forest Service headquarters and regional office personnel.

Further, we reviewed the official record of the petition process and other files available at FWS' Region 1 and headquarters offices. The lack of official files was a limiting factor in this review. Regional electronic files pertaining to the status review team's efforts were erased before the final status report was issued in December 1987. In addition, many of the key decision points, meetings, and phone calls were not documented.

As requested, we restricted our efforts to evaluating FWS' decision-making process and take no position on the appropriateness of the decision itself.

We discussed the information obtained during the review with Interior officials and incorporated their comments where appropriate. However, as agreed with your office, we did not obtain official agency comments on a draft of this report.

As also agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will send copies to interested parties and make copies available to others upon request. Major contributors to this report are listed in appendix IV.

Sincerely yours,



James Duffus III
Director, Natural Resources
Management Issues

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Abbreviations	
ESA	Endangered Species Act
FWS	U.S. Fish and Wildlife Service
GAO	General Accounting Office

Summary of Endangered Species Act and Federal Regulation Requirements

The Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*) (ESA) as amended and its accompanying regulations (50 C.F.R. 424) set forth the procedures to be followed in petitioning to have a species listed as either endangered or threatened. It specifies time limits to perform certain functions, and requirements that must be met. The following extracts show the requirements that pertain to the petition to list the spotted owl.

Definitions

"The term 'endangered species' means any species which is in danger of extinction throughout all or a significant portion of its range other than a species of Class Insecta determined by the Secretary to constitute a pest. . ." (ESA, Section 3(6))

"The term 'Secretary' means, except as otherwise herein provided, the Secretary of the Interior or the Secretary of Commerce as program responsibilities are vested. . ." (ESA, Section 3(15))

"The term 'person' means an individual, corporation, partnership, trust, association, or any other private entity, or any officer, employee, agent, department, or instrumentality of the Federal Government, of any State or political subdivision thereof, or of any foreign government." (ESA, Section 3(13))

"The term 'species' includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species or vertebrate fish or wildlife which interbreeds when mature." (ESA, Section 3(16))

"The term 'threatened species' means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." (ESA, Section 3(20))

Individuals Allowed to Petition

"General. Any interested person may submit a written petition to the Secretary requesting that one of the actions described in Section 424.10 [adding or removing a species or critical habitat from the endangered or threatened species lists] be taken. Such a document must clearly identify itself as a petition and be dated. It must contain the name, signature, address, telephone number, if any, and the association, institution, or business affiliation, if any, of the petitioner. The Secretary shall acknowledge in writing receipt of such a petition within 30 days." (50 C.F.R. Section 424.14. petitions.)

"In making a finding the Secretary shall consider whether such petition -

(i) Clearly indicates the administrative measure recommended. . . ;

-
- (ii) Contains detailed narrative justification for the recommended measure, describing, based on available information, past and present numbers and distribution of the species involved and any threats faced by the species;
 - (iii) Provides information regarding the status of the species over all or a significant portion of its range; and
 - (iv) Is accompanied by appropriate supporting documentation in the form of bibliographic references . . ." (50 C.F.R. Section 424.14(b)(2))

Requirement to Consider Only Biological Status in Making Listing Decision

"The Secretary shall make determinations required by subsection (a)(1) of this section solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species . . ." (ESA, Section 4(b)(1)(A))

"The principal purpose of these amendments is to ensure that decisions in every phase of the process pertaining to the listing or delisting of species are based solely upon biological criteria and to prevent nonbiological considerations from affecting such decisions." (Conference Report 97-835 at page 19 (1982))

Criteria for Determining Endangerment

"The Secretary shall by regulation promulgated in accordance with subsection (b) of this section determine whether any species is an endangered species or a threatened species because of any of the following factors:

- (A) the present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) overutilization for commercial, recreational, scientific, or educational purposes;
- (C) disease or predation;
- (D) the inadequacy of existing regulatory mechanisms; or
- (E) other natural or manmade factors affecting its continued existence." (ESA, Section 4(a)(1))

Time Frame Requirements

"To the maximum extent practicable, within 90 days after receiving the petition . . . the Secretary shall make a finding as to whether the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted . . ." (ESA, Section 4(b)(3)(A))

"The requirement to make such a finding within 90 days may be waived only if the devotion of staff resources to petition responses would interfere with actions needed to list other species in greater need of protection." (49 FR 38900)

"Within 12 months after receiving a petition that is found under paragraph (A) to present substantial information indicating that the petitioned action may be warranted, the Secretary shall make one of the following findings:

(i) The petitioned action is not warranted, in which case the Secretary shall promptly publish such finding in the Federal Register.

(ii) The petitioned action is warranted, in which case the Secretary shall promptly publish in the Federal Register a general notice and the complete text of a proposed regulation to implement such action . . .

(iii) The petitioned action is warranted but that -

(I) the immediate proposal and timely promulgation of a final regulation . . . is precluded by pending proposals to determine whether any species is an endangered species or a threatened species, and

(II) expeditious progress is being made to add qualified species to either of the lists published." (ESA, Section 4(b)(3)(B))

"A petition with respect to which a finding is made under subparagraph (B)(iii) shall be treated as a petition that is resubmitted to the Secretary under subparagraph (A) on the date of such finding and that presents substantial scientific or commercial information that the petitioned action may be warranted." (ESA, Section 4(b)(3)(C))

"Any negative finding described in subparagraph (A) and any finding described in subparagraph (B)(i) or (iii) shall be subject to judicial review." (ESA, Section 4(b)(3)(C)(ii))

GreenWorld Petition to List the Northern Spotted Owl as an Endangered Species

PETITION TO LIST A SPECIES AS ENDANGERED

GreenWorld

1439 Massachusetts Avenue, Cambridge MA 02138

November 28, 1986

Frank Dunkle, Director
Office of Endangered Species
U. S. Fish and Wildlife Service
Washington, D. C. 20240

Mr. Dunkle,

Pursuant to Section 4.(b)(3) of the Endangered Species Act and as promulgated by your agency under federal regulation 50 CFR IV Sec. 424.14, I hereby request that you list the Northern Spotted Owl (*Strix Occidentalis Caurina*) as an endangered species.

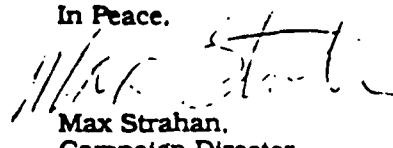
The Northern Spotted Owl population is in decline due to the destruction through lumbering of its "old-growth" forest habitat. The plight of the Northern Spotted Owl is well known by you and I request that you proceed immediately with its listing as an endangered species. It is of paramount importance to designate critical habitat for this species since habitat destruction is the major cause of its declining population.

In addition to my October 1, 1986 letter to you, you will find an excellent review of current information on the species as well as a thorough bibliography on it in the National Audubon Society's Report of the Advisory Panel on the Spotted Owl.

I believe you have available to you sufficient information to proceed quickly to rule it a candidate species as well as list it without delay, as a category one endangered species. I feel there should be no delay since the destruction of its habitat will soon render it extinct and especially since said destruction is being regulated by the Department of the Interior since it is mostly considered federal forest.

I hope my intent is clear and there will be no further delays in acting on my petition to list the Northern Spotted Owl as an endangered species. If you have any questions do contact myself at (617) 738-9519 or our consul, Burton Nadler, at (617) 720-1717. I await your reply.

In Peace.



Max Strahan,
Campaign Director

Appendix III

Time Line of Important Events in the Spotted Owl Status Review and Decision Process

The following time line documents key events in the spotted owl decision process. It is compiled from legal mandates, drafts of the status review, and interviews. In addition, it is important to note that most of the meetings that shaped the status review were not documented. The FWS Director told us this lack of documentation was in accordance with his paperwork reduction initiative. The dates below have been determined from personal logs and interviews.

Table III.1: Spotted Owl Status Review and Decision Process

Date	Action
1986	
October 1	GreenWorld letter requesting listing of the spotted owl as endangered. Not a petition, according to FWS.
1987	
January 28	GreenWorld letter, petitioning the listing of the spotted owl, received by FWS—legislated clock starts.
April 27	90-day finding that the petition is substantial sent from Region 1 to the FWS Director; received by FWS Director on April 29, 1987.
28	90-day finding due.
July 23	90-day finding issued by Director of FWS Region 1.
August 28	Status review team leader chosen.
September 1	Two-member status review team begins work.
14	Third team member arrives; team complete.
30	Concept of using a memorandum of understanding with federal land management agencies is discussed with team.
October 15	Preliminary draft of status review sent for peer review
November 6	Meeting in which team was told not to make conclusions or recommendations in status review.
13	Second draft of review sent for peer review.
24	Population viability analysis received from FWS expert concluding that the spotted owl is in trouble.
25	Team draft complete; five factors written. Team objects to management "edit" of status review. Team leader and one member return to previous assignments after completing their work.
26-30	Team draft rewritten by management and remaining team member. Draft includes population viability analysis. Status review sent to Washington, D.C., headquarters.
December 1	Director signs memorandum of understanding with U.S. Forest Service.
3-4	Team member corrects scientific citations in November 30 draft; makes corrections to November 30 draft.
4	Headquarters personnel review November 30 draft.
4-7	Additional team member recalled for 3 days.
7-11	Management and team members rewrite November 30 draft. Review by management and counsel.

(continued)

Appendix III
**Time Line of Important Events in the Spotted
Owl Status Review and Decision Process**

Date	Action
11	Draft now eliminates population viability analysis, and unfavorable references to spotted owl management are softened. Director of FWS Region 1 briefed; team told to brief the FWS Director on December 15.
12	Five factors rewritten by one team member and endangered species listing coordinator.
14	Status review team leader sees rewrite for first time since November 25 draft. Options papers prepared for FWS Director; an FWS Assistant Director is briefed.
16	Region 1 management staff briefs the FWS Director.
18	Decision not to list signed by the Director of FWS Region 1.
1988	
January 28	Date legally required for decision.
May 5	Sierra Club Legal Defense Fund files suit to have the northern spotted owl placed on the list of threatened and endangered species.
November 17	District Court remands the suit to FWS, calling the decision not to list arbitrary and capricious; orders FWS to explain its decision by February 17, 1989.
1989	
January 12	Court granted FWS request for extension to May 1, 1989, to provide additional support for its decision.

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